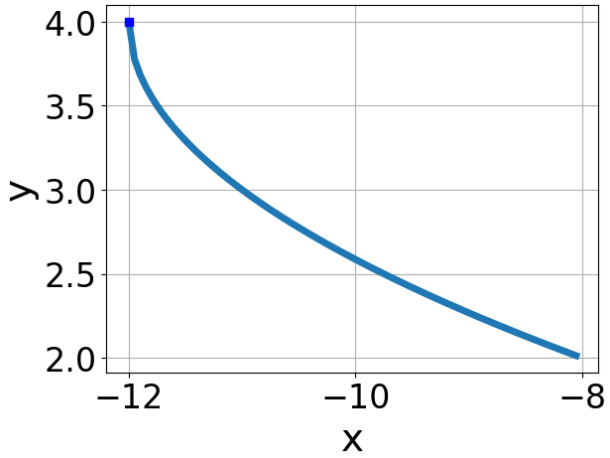
1. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-12}+4$

B. $f(x) = \sqrt[3]{x-12}+4$

C. $f(x) = \sqrt[3]{x+12}+4$

D. $f(x) = -\sqrt[3]{x+12}+4$

E. None of the above

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2. What is the domain of the function below?

$$f(x) = \sqrt[8]{7x+5}$$

A. $(-\infty, \infty)$

B. $[a, \infty)$, where $a \in [-1.88, -1.02]$

C. $[a, \infty)$, where $a \in [-0.82, -0.36]$

D. $(-\infty, a]$, where $a \in [-2.1, -0.83]$

E. $(-\infty, a]$, where $a \in [-0.95, 0.49]$

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3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{9x-7} - \sqrt{2x-5} = 0$$

A. $x \in [-0.19, 0.29]$

B. All solutions lead to invalid or complex values in the equation.

C. $x \in [1.42, 1.95]$

D. $x_1 \in [0.42, 1.49]$ and $x_2 \in [2.01, 2.77]$

E. $x_1 \in [-0.19, 0.29]$ and $x_2 \in [0.03, 0.82]$

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4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{4x+6} - \sqrt{6x+8} = 0$$

A. All solutions lead to invalid or complex values in the equation.

B. $x_1 \in [-2.85, -1.21]$ and $x_2 \in [-1.2, -0.66]$

C. $x \in [6.06, 7.44]$

D. $x_1 \in [-2.85, -1.21]$ and $x_2 \in [-1.75, -1.28]$

E. $x \in [-1.13, -0.94]$

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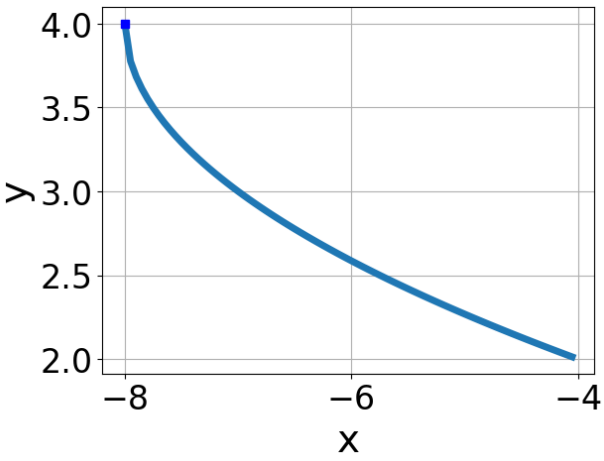
5. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x+8} + 4$

B. $f(x) = -\sqrt{x+8} + 4$

C. $f(x) = \sqrt{x-8}+4$

D. $f(x) = -\sqrt{x-8}+4$

E. None of the above

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6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{8x^2-56} - \sqrt{18x} = 0$$

A. $x \in [-3, -1.6]$

B. All solutions lead to invalid or complex values in the equation.

C. $x_1 \in [0.8, 2.8]$ and $x_2 \in [2, 9]$

D. $x_1 \in [-3, -1.6]$ and $x_2 \in [2, 9]$

E. $x \in [2.6, 4.7]$

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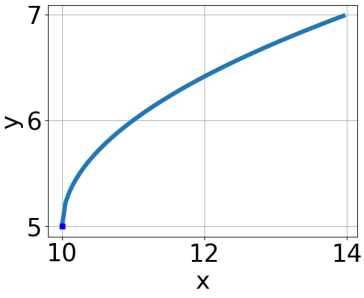
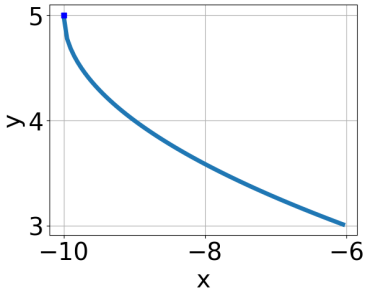
7. Choose the graph of the equation below.

$$f(x) = -\sqrt{x-10}+5$$

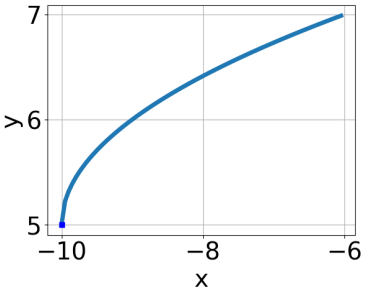
A.



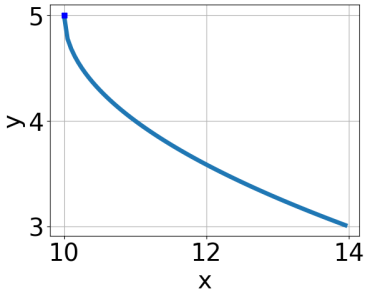
C.



B.



D.



E. None of the above.

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8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-56x^2 - 35} - \sqrt{91x} = 0$$

A. $x \in [-1.03, -0.83]$

B. $x_1 \in [-1.03, -0.83]$ and $x_2 \in [-1.25, 0.13]$

C. All solutions lead to invalid or complex values in the equation.

D. $x \in [-0.66, -0.32]$

E. $x_1 \in [0.94, 1.32]$ and $x_2 \in [0.06, 1.18]$

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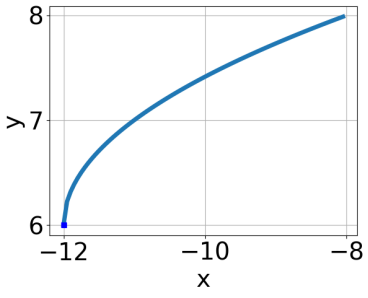
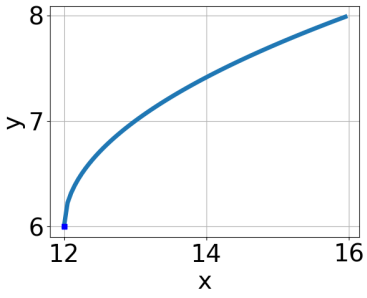
9. Choose the graph of the equation below.

$$f(x) = \sqrt{x + 12} + 6$$

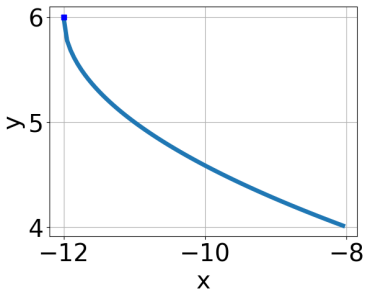
A.



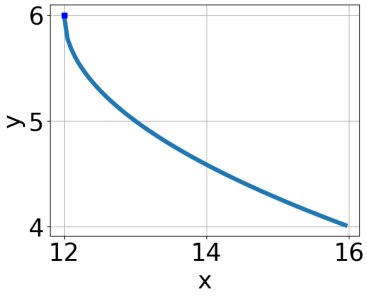
C.



B.



D.



E. None of the above.

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10. What is the domain of the function below?

$$f(x) = \sqrt[8]{-8x + 7}$$

A. $(-\infty, a]$, where $a \in [0.68, 1.07]$

B. $[a, \infty)$, where $a \in [0.92, 1.43]$

C. $[a, \infty)$, where $a \in [0.73, 0.91]$

D. $(-\infty, a]$, where $a \in [0.99, 1.58]$

E. $(-\infty, \infty)$